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Remarks

Claims 1-29 are pending in the application. Claims 25 and 27-29 are subject to a restriction requirement and have been withdrawn. Claims 1, 15, and 23-24 have been amended. Support for the amendment can be found throughout the Specification, and in particular, page 8, lines 5-21; and page 14, lines 7-18.

Rejections under 35 USC 112

Claims 15-22 were rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention.

Applicants have amended claim 15 to clarify that a non-porous substrate and the coating are two separate elements of the claim. Applicants have also amended claims 23-24 to depend from claim 15. Applicants respectfully submit that rejections under 35 USC 112, second paragraph, have been overcome.

Rejections under 35 USC 102(e)/103

Claims 1-11, 13-21, 23, and 26 are rejected under 35 USC 102(e) as anticipated by, or in the alternative, under 35 USC 103 as obvious over U.S. Patent. No. 6,908,453 (Fleming). The Examiner cites Fleming to disclose "a hydrophilic coating to enhance fluid transport by coating . . . using a surfactant solution that includes from about 0.05% to about 0.5%, by weight, branched chain sodium dodecylbenzene sulfonate . . . and from about 0.10% to about 0.6% by weight ethoxylated acetylenic diol . . . in a solvent including a 70/30 mix of isopropyl alcohol and water. . . "

Applicants have amended independent claims 1 and 15 to recite that the surfactant composition in claim 1, and the coating composition in claim 15, are dried. Fleming fails to teach that the hydrophilic coating is dried. Accordingly, Fleming fails to teach every element of the claims as amended, and as such, cannot anticipate the amended claims. Applicants expressly reserve the right to overcome any future rejections under 35 USC 102(e) as anticipated by Fleming by affidavit pursuant to 37 CFR 1.132.

As noted by the Examiner, Fleming has a common assignee with the instant application. As such, Fleming can be disqualified under 35 U.S.C. 103 based on 35 U.S.C. 102(e) if the subject matter of Fleming and the claimed invention "were, at

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the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.” Accordingly, Applicants submit the following statement of ownership:

Statement of Ownership

Application No. 10/687,340 and U.S Patent. No. 6,908,453 were, at the time the invention of Application 10/687,340 was made, owned by 3M Innovative Properties Company.

For at least the above reasons, Applicants submit that claims 1-11, 13-21, 23, and 26 as amended are not anticipated by, or in the alternative, cannot be obvious over Fleming.

Rejections under 35 USC 102(b)/103

Claims 1, 4-5, 8-11, 13-17, 20-21, 23, and 26 have been rejected under 102(b) as anticipated by, or in the alternative, under 103(a) as obvious over UK Patent No. GB 1235918 (Weigel). The Examiner cites Weigel to teach “a coating on a surface comprising an anionic surfactant . . . and a nonionic surfactant. . .” The Examiner concludes that “Weigel teaches the same composition as claimed” and, and thus, the functional parameters such as “the results of the Spreading Drop Test . . . and the contact angle on the hydrophilic surface” would inherently be the same.

Applicants respectfully disagree. First, Applicants point out that Weigel’s coatings of surfactants are “water-insoluble” (col. 2, lines 82-86) and thus, cannot be considered hydrophilic. For that reason alone, Weigel fails to teach every element of Applicants’ invention as claimed.

Further, Applicants note that Weigel fails to teach a combination of a surfactant and stabilizer that forms a dried hydrophilic coating with the claimed physical properties. Weigel rather teaches successive surfactant layers obtained by electrochemical deposition induced by electrochemical charge while in solution, and subsequently heated). See col. 1, lines 40 to col. 2, lines 46-53; col. 2, lines 87 to col. 3, lines 1-20.

For at least the above reasons, Applicants submit that claims 1, 4-5, 8-11, 13-17, 20-21, 23, and 26 as amended are not as anticipated by, or in the alternative, obvious over Weigel.

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Claims 15-18, 20, 23-24 and 26 have also been rejected under 102(b) as anticipated by, or in the alternative, under 103(a) as obvious over EP Patent No. 1101803 (Kanno). The Examiner cites Kanno to teach "a coating composition for use on substrates . . . comprising 0.05 to 2% of a surfactant or combination of surfactants . . . in water and water soluble solvents such as methanol, ethanol . . . (citations omitted)." The Examiner concludes that "Kanno teaches the same composition as claimed" and, and thus, the functional parameters such as "the results of the Spreading Drop Test . . . and the contact angle on the hydrophilic surface" would inherently be the same.

Applicants respectfully disagree. Kanno discloses an undercoating composition for use as an intermediate layer for improving the coatability of photocatalytically hydrophilifiable or photoexcitable coating. Applicants note that Kanno fails to teach a combination of a surfactant and stabilizer that forms a dried hydrophilic coating with the claimed physical properties.

Rather, Kanno teaches a surfactant coating selected from non-ionic surfactants and fluorosurfactants. For purposes of examination, the Examiner appears to equate Kanno's fluorosurfactants with Applicants' stabilizer component. Applicants note that the combination of nonionic surfactant and fluorosurfactants as taught by Kanno are listed as comparative examples in Kanno's examples, i.e., the undercoating caused undesirable coatibility and surface appearance of the photocatalyst. Those examples with desirable characteristics as an undercoating contained only a single surfactant component. Further, none of the undercoating compositions were measured for hydrophilicity characteristics.

For at least the above reasons, Applicants submit that claims 15-18, 20, 23-24 and 26 as amended are not as anticipated by, or in the alternative, obvious over Kanno.

Rejections under 35 USC 103(a)

Claims 1-24 and 26 are rejected as being obvious over US Patent No. 4,784,789 (Jeschke) in view of US Patent No. 6,313,182 (Lassila). The Examiner cites Jeschke to disclose a composition / . . . comprising 0.02 to 5 % of an amphoteric polymer-including anionic surfactants . . . and a surfactant- including alkylbenzene sulfonates . . . in a 20:1 to 1:1 ratio dissolved in water and a water soluble solvent. . . (citations omitted). The

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Examiner acknowledges that Jeschke does not expressly disclose acetylenic diol ethylene oxide adduct, and relies on Lassila for that disclosure.

Applicants respectfully disagree. Jeschke discloses high molecular weight amphoteric polymers in the presence of surfactant(s). First, the Examiner appears to equate the amphoteric polymers in Jeschke with the surfactant component of Applicant's claims, and the surfactant of Jeschke with the stabilizer component of Applicants' claims. If so, Applicants disagree with the Examiners' classification of the amphoteric polymers as anionic surfactants. Ra

In addition, there is nothing in Jeschke to suggest that a solution containing amphoteric polymers would exhibit the the functional parameters of Applicants' claims such as "the results of the Spreading Drop Test . . . and the contact angle on the hydrophilic surface." Obviously, removal of the amphoteric polymer of Jeschke would destroy the functionality of the composition taught by Jeschke.

Further, Applicants disagree that one skilled in the art would substitute the teaching of the acetylenic diol ethylene oxide adduct of Lassila with the surfactants in Jeschke, or that either reference provides the motivation to do so. Rather, Lassila teaches the use of the adducts instead of nonionic and anionic surfactants (see col. 1, lines 31-44).

For at least the above reasons, Applicants submit that claims 1-24 and 26 as amended are not obvious over Jeschke in view of Lassila.

Conclusion

All outstanding objections and rejections are believed to have been met and overcome. If a telephonic conference with Applicants' undersigned representative would be useful in advancing the prosecution of the present application, the Examiner is invited to contact the undersigned at (651) 733-2180. A notice of allowance for all pending claims is respectfully solicited.

Respectfully submitted,

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NML:jlh/#78448 - Response to OA 12-28-05
Office of Intellectual Property Counsel

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